REMARKS

The following remarks are made in response to the Office Action mailed October 27, 2005. In that Office Action, claims 9-11 and 19 were rejected under 35 U.S.C. § 112, second paragraph, as indefinite. In addition, claims 1, and 4-19 were rejected under 35 U.S.C. § 103(a) over Applicants' admitted prior art in view of Cooper, U.S. Patent No. 6,511,011 ("Cooper"). Claim 2 was rejected under 35 U.S.C. § 103(a) over Applicants' admitted prior art in view of Cooper, and further in view of Blizard et al., U.S. Patent No. 6,231,942 ("Blizard"). Claim 3 was rejected under 35 U.S.C. § 103(a) over Applicants' admitted prior art in view of Cooper, and further in view of Xu, U.S. Patent No. 6,579,910 ("Xu").

With this response, claims 9-11 and 19 have been amended. Claims 1-19 remain pending in the application and are presented for consideration and allowance.

Miscellany

An amendment has been made to FIG. 2 pursuant to 37 C.F.R. § 1.121(d). Included with this response, please find a Replacement Sheet for FIG. 2 (Sheet 2 of 5) indicating an upper flange 52 coupled to a first end 76 of hub 50 via a first interior edge 79. It is respectfully requested that the Examiner accept and enter this amendment to the drawings.

The Specification has been amended at page 7 to correct a typographical error unrelated to patentability, and to reflect the amendment to the drawings described above. It is believed that the amendments to the Specification and the drawings do not add new matter. It is respectfully requested that the Examiner accept and enter this amendment to the Specification.

Claim Rejections under 35 U.S.C. § 112

Claim 9-11 and 19 were rejected under 35 U.S.C. § 112, second paragraph as being indefinite. The Examiner suggests that for reasons related to clarity and/or definiteness, that the word "wall" should be inserted into claims 9-11 and 19.

With this response, claims 9-11 and 19 have been amended to recite a "wall" thickness as suggested by the Examiner. It is respectfully submitted that all claims are definite and in form

for allowance. It is respectfully requested that the rejections to claims 9-11 and 19 under 35 U.S.C. § 112, second paragraph, be withdrawn.

Claim Rejections under 35 U.S.C. § 103

Claims 1, and 4-19 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Applicants' admitted prior art in view of Cooper. It is respectfully submitted that a *prima facie* case of obviousness cannot be established because Cooper is non-analogous art. In this regard, a *prima facie* case of obviousness cannot be established if the reference employed is not in the inventor's field of endeavor, or reasonably pertinent to the specific problem with which the inventor was involved. *In re Deminski*, 796 F.2d 436, 442, 230 USPQ 313, 315 (Fed. Cir. 1986).

Cooper teaches an optical fiber appliance (Title) useful for managing excess lengths of installed fiber optic cable (Abstract). In the Abstract, Cooper teaches a routing spool that allows optic fiber cables to be wrapped in individual slots of a suitable radius to provide separation of cables and prevent kinking and microbends of fiber optic cables. Cooper teaches at column 2, lines 31-35 that in the field of fiber optic cable installation, a simple and inexpensive means for taking up excess fiber optic cable is necessary to properly manage and protect the cable.

With reference to Figures 1 and 7, Cooper teaches at column 3, lines 29-37 that a fiber optic spool 10 is composed of a pipe or other cylinder 16, having large three-dimensional spacer rings 12 and small three-dimensional spacer rings 14 arranged coaxially along the cylinder 16. Cooper teaches that the cylinder 16 is a standard two-inch diameter pipe of PVC plastic. The larger outer rings 12 alternate with the smaller rings 14 to form a cylinder with rings perpendicular to a central axis.

On its face, Cooper's field of endeavor is fiber optic cable/installation, which is not in the same field of endeavor as a tape reel assembly for use in a tape drive system of the pending invention. The apparatus and method taught by Cooper is related to a spool that allows fiber optic cables to be wrapped into individual slots that prevent kinking and bending of the fiber optic cable. Notably, substantial evidence must support the PTO's factual assessment of the field of endeavor. *In re Bigio*, 381 F.3d 1320, 1326, 72 USPQ2d 1209 (Fed. Cir. 2004) (citing *In re Gartside*, 203 F.3d 1305, 1315 (Fed. Cir. 2000)). Quoting Judge Rader: "In other words, the

PTO must show adequate support for its findings on the scope of the field of endeavor in the applicant's written description and claims, including the structure and function of the invention." 381 F.3d at 1326 (emphasis added). As such, it is respectfully submitted that Cooper is not in the inventor's field of endeavor.

In addition, it is respectfully submitted that Cooper is not reasonably pertinent to the specific problem solved by the pending tape reel assembly invention. "A reference is reasonably pertinent if . . . it is one which, because of the matter with which it deals, logically would have commended itself to the inventor's attention in considering his problem . . . If a reference disclosure has the same purpose as the claimed invention, the reference relates to the same problem . . . If it is directed to a different purpose, the inventor would accordingly have had less motivation or occasion to consider it." *In re Clay*, 966 F.2d 656, 23 USPQ2d 1058, 1060-61 (Fed. Cir. 1992).

The stated purpose in Cooper is to provide a "specially designed routing spool that allows fiber cables to be wrapped in individual slots of suitable radius to provide separation of cables and prevent kinking." *See* Cooper Abstract. Embodiments of the claimed invention are directed to providing a tape reel assembly with a stiffer, deformation resistant hub having a uniformly straight tape winding surface. *See* Specification at page 12, line 24 through page 16, line 10. Thus, under *In re Clay*, Cooper does not have the same purpose as the claimed invention, and cannot be said to relate to the same problem. Since Cooper is directed to a different purpose (preventing bending of fiber optic cable), it is respectfully submitted that one of skill in the tape reel assembly art would have no motivation or occasion to consider the Cooper reference.

Consequently, it is respectfully submitted that Cooper is not from the same field of endeavor as the tape reel assembly of the pending claims, and Cooper is not reasonably pertinent to the specific problem solved by the pending tape reel assembly invention. For these reasons, it is respectfully submitted that a *prima facie* case of obviousness cannot be established based upon Cooper since Cooper is non-analogous art.

Thus, the rejection of claim 1 under 35 U.S.C. § 103(a) should be withdrawn. Claims 2-13 depend from independent claim 1, and are thus similarly allowable. MPEP § 2143.03.

Independent claim 14 provides at least one tape reel assembly rotatably disposed within an enclosed region of a housing and including a hub defining a tape winding surface; and a storage tape wound about the tape winding surface; where the hub is formed from a microcellular foam. For the reasons set forth above, it is respectfully submitted that a *prima facie* case of obviousness cannot be established based upon Cooper since Cooper is non-analogous art. Thus, the rejection of claim 14 under 35 U.S.C. § 103(a) should be withdrawn. Claims 15-19 depend from independent claim 14, and are thus similarly allowable. MPEP § 2143.03.

In addition to the above, it is further noted that claim 2 was rejected under 35 U.S.C. § 103(a) as unpatentable over Applicants' admitted prior art in view of Cooper, and further in view of Blizard. The Office Action takes the position at page 3 that it would have been obvious to a person having ordinary skill in the art to modify the Applicants' admitted prior art according to the microcellular foam taught by Cooper, and to further modify this combination with the microcellular polypropylene material of Blizard to arrive at the claimed tape reel assembly. Applicants respectfully disagree.

Blizard teaches at column 12, lines 3-5 that very thin products, such as sheets, can be made according to the Blizard invention. Blizard teaches at column 12, lines 27-30, that a particularly preferred embodiment of the invention is employed to fabricate drinking straws. It is respectfully submitted that a *prima facie* case of obviousness cannot be established based upon the cited references without a suggestion or motivation to combine the reference teachings. In particular, the teaching in Blizard provides no motivation to apply microcellular polypropylene materials to other than thin sheets.

Applicants respectfully note that the teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not in Applicants' disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). MPEP § 2143. Consequently, it is respectfully submitted that one of ordinary skill in the tape reel assembly art would have no motivation or occasion to consider the non-analogous Cooper reference, and that no motivation has been shown to exist to form a hub of any type based upon the thin sheets of microcellular polypropylene taught in Blizard.

With this in mind, it is respectfully requested that the rejection to claim 2 under 35 U.S.C. § 103(a) as unpatentable over admitted prior art in view of Cooper, and further in view of Blizard be withdrawn.

Claim 3 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Applicants' admitted prior art in view of Cooper, and further in view of Xu. The Office Action mailed October 27, 2005 takes the position at page 4 that Xu discloses a microcellular material having a cell size of less than about 20 microns, and it would have been obvious to a person having ordinary skill in the art to modify the Applicants' admitted prior art according to the microcellular foam taught by Cooper, and to further modify this combination with the material as taught by Xu. Applicants respectfully disagree.

Xu teaches in the Abstract a system and method of producing microcellular foam. It is respectfully submitted that Xu provides no suggestion or motivation to combine the indicated process to tape reel assemblies having hubs that define tape winding surfaces. As noted above, the teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not in Applicants' disclosure. MPEP § 2143. Thus, it is respectfully submitted that one of ordinary skill in the tape reel assembly art would have no motivation or occasion to consider the non-analogous Cooper reference, and that no motivation has been shown to exist to form a hub of any type based upon the microcellular material taught in Xu.

For at least this reason, it is respectfully submitted that a *prima facie* case of obviousness cannot be established based upon the Xu reference. It is respectfully requested that the rejection to claim 3 under 35 U.S.C. § 103(a) over Applicants' admitted prior art in view of Cooper, and further in view of Xu be withdrawn.

With specific reference to dependent claims 4-6 and 15-16 that recite a further limitation directed to average total waviness, and dependent claims 7-8 and 17-18 that recite a further limitation directed to total indicator run-out, it is respectfully submitted that these limitations are more than mere design choices, such that these dependent claims are not obvious in light of the cited art.

For example, Cooper teaches that microcellular foam enhances the stiffness of containers for fiber optic strands. Cooper is silent as to average total waviness and total indicator run-out. Applicants' admitted prior art teaches that stiffness and waviness work against each other – that is, increasing the stiffness of a hub also increases the waviness of the hub. *See* Specification at page 3, lines 3-12. Therefore, based upon the teachings of Applicants' admitted prior art in view of Cooper, it is not obvious to arrive at a hub formed of microcellular foam having an average total waviness as recited in claims 4-6 and 15-16, nor is it obvious to arrive at a hub formed of microcellular foam having a total indicator run-out as recited in claims 7-8 and 17-18. Applicants respectfully note that the teaching of average total waviness as recited in claims 4-6 and 15-16 and total indicator run-out as recited in claims 7-8 and 17-18 cannot be found in the prior art, but is only available through Applicants' disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). MPEP § 2143. Thus, it is respectfully submitted that dependent claims 4-8 and 15-18 recite a further patentably distinct limitation over respective independent claims, such that these claims are allowable.

CONCLUSION

In view of the above, Applicants respectfully submit that pending claims 1-19 are in form for allowance, recite patentable subject matter, and are not taught or suggested by the cited references. Therefore, reconsideration and withdrawal of the rejections, and allowance of claims 1-19, is respectfully requested.

No fees are required under 37 C.F.R. § 1.16 for the addition of excess claims. However, if such fees are required, the Patent Office is hereby authorized to charge Deposit Account No. 09-0069.

Amendment and Response
Applicant: Jason D. Hanlik et al.
Serial No.: 10/801,295
Filed: March 16, 2004
Docket No.: 10423US01
Title: TAPE REEL ASSEMBLY WITH MICROCELLULAR FOAM HUB

The Examiner is invited to telephone the Applicants' representative at the below-listed number to facilitate prosecution of this application.

Respectfully submitted,

Date: 1/23/06

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